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Amendments to the claims:

Please cancel claims 44-46 without prejudice, as reflected in the amendment below, and amend claim 28.

1. (Previously Amended) A composition comprising a substantially purified AviIII peptide, said AviIII peptide comprising a catalytic domain of a glycosyl hydrolase family 74 (GH74_Ace) enzyme having at least 70% identity to SEQ ID NO. 3 and a carbohydrate binding domain (CBD) III, the catalytic domain GH74_Ace having a sequence identical to SEQ ID NO 3 in each conserved position marked by an asterisk (*), as shown below in comparison to *Aspergillus aculeatus* Avicelase III (AviIII_Ace):

GH74_Ace	ATTQPYTWSNVAIGGGG-FVDGIVFNEGAPGILYVRTD1GGMYRWDANGRWIPLLDWVG
AviIII_Aac	AASQAYTWKVVTCGGGGFTPGIVFNPSAKGVAYARTDIGGAYRLNSDD-TWTPLMDWVG * : * , * * , * . * * * . * . * : * . * * * * * * : ; : * * : * * *
GH74_Ace	WNNWGYNGVVSIAADPINTNKVWAAGMYTNSWDPNDGAILRSSDQGATWQITPLPFKLG
AviIII_Aac	NDTWHWDGVIDALATDPVDTDRVYVAVGMYTNEWDPNVGSILRSTDQGDWTETKLPFKVG : * : * : ; * : ; : ; : , * * * * * * : * : * * * ; * * * * * * ; *
GH74_Ace	GNMPGRGMGERLAVIDPNNDNLLYFGAPSGKGLWRSTDSGATWSQMTNPDVGTYIANPTD
AviIII_Aac	GNMPGRGMGERLAVIDPNKNSILYFGARSGHGLWKSTDYGATWSNVTSFTWTGTYFQDSSS * * * * * * * * * * : * * * * : * * : * * * * * * ; ; * . * . * : ; .
GH74_Ace	TTGYQSDIQQGVVWAFDKSSSSLGQASKTIFPGVADPPNPVFWSRDGGATWQAVPGAP-T
AviIII_Aac	T--YTSDPVGLAWTFDSTSQQGSAATPRIFPGVADAGKSPVKSEDAGATWANVSGEPQY * * * * : * : * : * . * : * : * * * * . . * * . * * * * . * . * . * .
GH74_Ace	GFIPHKGVFDPVNVKLYIATNTGGFYDGSSGDVWKFSVTSGTWTRISFPVSTDIAANDYF
AviIII_Aac	GFLPHKGVLSPPEEKTLYIISANGAGPYDGTNGTVHKYNIITSGVWTDISP---TSLASTYY * * : * * * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .
GH74_Ace	GYSLGLTIDRQHPNTIMVATQISWWPDIIIFRSTDGGATWTRIWDWTSYPNRSLRYVLDIS
AviIII_Aac	GYGGLSLVDSLQVEGTLMLVAALNCWWPDELIFRSTDGATWSPIFIWEWNGPSINTYYSYDIS ** . * * : * . * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .
GH74_Ace	AEPWLTFGVQFPVPSPKLGWMDEAMAIDPFNSDRMLYGTGTATLYATNDLTWD6GGQI
AviIII_Aac	NAPWIQDTTSTDQFP--VRVGMWVEALAIIDPPDSNHWLYGTGLTVYGGHDLTNWDSKENV * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .
GH74_Ace	HIAPMVKGLETAVNDLISPPSGAPLISALGDLGGFTADVTAVPSTIFTSPVFTTGTsv
AviIII_Aac	TVKSLSAVGIEEMAVLGLITPPGGFALLSAVGDDGGFTHSLDAAAPNQAYHTPTYGTNTGI : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .
GH74_Ace	DYAEELNPSITIVRAGSFDPSSQPNDRHVAFSTDGGKNWFQGSEPGGVTTGGTVAASADGSR
AviIII_Aac	DYAGNKPMSNIVRSGASDDYF----TLALSSNFGSTWYADYAASTSTGTGAVALSADGDT *** : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .
GH74_Ace	FVWAPGDPGPVYAVGFGNSWAASQGVPAQIRSDRVNPKTIFYALSNGTFYRSTDGGV
AviIII_Aac	VLLMSSTSGALVSKSQG---TLTAVSS9LPSGAVIASDKSDNTVYGGSAGAIYVSKNTAT * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .
GH74_Ace	TFQPVARGLPSSGAVGVMFHAVPGKEGLDWLAASSGLYHSTNGGSSWSAI-TGVSSAVNV
AviIII_Aac	SFTKTVS-LGS9TTVNAIR-AHPSIAGDVWASTDKGLWHSTDYGSTFTQYGSVUTAGWSF . * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : .

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GH74_Ace LRRVYIGTNGRGIVYGDIGGAPSG
AvIII_Aac YGRVFRGHERPGHLLRQSQREPAG
 *** * * * *

2. (Previously Amended) The composition of claim 1 wherein the AviIII peptide is further defined as comprising a linker and a signal sequence.

3. (Cancelled)

4. (Previously Amended) The composition of claim 1 or 2 wherein the carbohydrate binding domain (CBD) III of the AviIII peptide is further defined as comprising a length of about 80 to about 150 amino acids.

5. (Previously Amended) The composition of claim 1 or 2 wherein the carbohydrate binding domain (CBD) III of the AviIII peptide is further defined as comprising a length of about 90 amino acids.

6. (Previously Amended) The composition of claim 1 wherein the glycosyl hydrolase family 74 enzyme catalytic domain is further defined as including a polypeptide sequence of identical to SEQ ID NO: 3.

7. (Previously Amended) The composition of claim 3 1 wherein the carbohydrate binding domain (CBD) III is further defined as a polypeptide sequence of SEQ ID NO: 4.

8. (Previously Amended) The composition of claim 3 1 wherein the carbohydrate-binding domain (CBD) III is further defined as comprising the polypeptide sequence of SEQ ID NO: 5.

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10. (Previously Amended) The composition of claim 1, the catalytic domain GH74_Ace including at least about 80% sequence identity SEQ ID NO: 3..

11. (Previously Amended) The composition of claim 1 the catalytic domain GH74 including at least 80% sequence identity to SEQ ID NO: 3.

12. (Previously Amended) An isolated AviIII peptide having a polypeptide sequence of SEQ ID NO: 1.

13. (Cancelled)

14. (Previously Amended) An industrial mixture suitable for degrading cellulose, such mixture comprising the AviIII polypeptide of claim 1.

15. (Original) The industrial mixture of claim 14 further defined as comprising a detergent.

16 - 27 (Cancelled)

28. (Currently Amended) An isolated polypeptide molecule comprising at least one polypeptide sequence selected ~~from the group consisting of:~~ from the group consisting of:

- a) a polypeptide sequence of SEQ ID NO: 3;
- b) a polypeptide sequence of SEQ ID NO: 4;
- c) a polypeptide sequence of SEQ ID NO: 5;
- d) a polypeptide sequence of SEQ ID NO: 1; and
- e) combinations thereof.

29. (Cancelled)

30. (Original) A fusion protein comprising the polypeptide of claim 28 and a heterologous peptide.

31. (Original) The fusion protein of claim 30, wherein the heterologous peptide is a substrate targeting moiety.

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32. (Original) The fusion protein of claim 30, wherein the heterologous peptide is a peptide tag.
33. (Previously Amended) The fusion protein of claim 32, wherein the peptide tag is 6-His, thioredoxin, hemagglutinin, glutathione S-transferase, or OmpA signal sequence tag.
34. (Original) The fusion protein of claim 30, wherein the heterologous peptide is an agent that promotes polypeptide oligomerization.
35. (Original) The fusion protein of claim 34, wherein the agent is a leucine zipper.
36. (Original) A cellulase-substrate complex comprising the isolated polypeptide molecule of claim 28 bound to cellulose.
Claims 37-42 (Cancelled)
43. (Original) A composition comprising the polypeptide molecule of claim 28 and a carrier.
44. (Cancelled)
45. (Cancelled)
46. (Cancelled)